

As – O (Arsenic – Oxygen)

Crystal structure

Beside As_2O_3 , which occurs in three modifications [Landolt-Börnstein], two more oxides of As have been found. Their crystallographic details are given in Table 1.

Table 1. As–O. Crystallographic data of some intermediate phases in the As-O system ([Massalski], [Pearson]).

Phase	Structure	Prototype	Lattice parameters [nm]		
			<i>a</i>	<i>b</i>	<i>c</i>
AsO_2	ort	AsO_2	0.8597		
$\gamma\text{-As}_2\text{O}_5$ H	ort	As_2O_5	0.8642	0.8450	0.4626
$\beta\text{-As}_2\text{O}_5$ L	tet		0.8577		0.4637

H = High temperature modification

L = Low temperature modification

References

- [Landolt-Börnstein] New Series, Group IV, Vol. 5, Subvolume a to j, Predel, B., Madelung, O. (ed.), Springer-Verlag (1991) to (1998)
- [Massalski] Massalski, T.B., (ed.): “Binary Alloy Phase Diagrams”, Second Edition, The Materials Information Society, ASM International, Materials Park, Ohio (1992)
- [Pearson] Pearson, W.B.: “Handbook of Lattice Spacings and Structure of Metals and Alloys”, Pergamon Press, New York, (1958), Vol. 1, (1967) Vol. 2